

## REMARKS

Favorable reconsideration of the above-identified application is requested in view of the amendments made herein and the following remarks.

Examiner Grant is thanked for the time and courtesies extended to Applicants' representative, Kevin McGoff, during an interview held on August 3, 2006. The arguments and amendments presented herein are along the lines of those presented and discussed during the interview.

Claims 1-33 are pending, with Claims 1, 7, 11-13, 17 21, 26 and 29 being independent.

The Examiner is thanked for indicating that Claims 16 and 20 are considered allowable over the art of record.

Claims 1, 2, 6, 7 and 10-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by JP 09-054664 to Satoshi, hereinafter *Satoshi*. Claims 3-5, 8 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Satoshi* in view of U.S. Patent No. 6,137,587 to Muto, hereinafter *Muto*. Claim 12 is rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,026,258 Fresk et al., hereinafter *Fresk*. Claims 13 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application No. 5,748,337 to Minamizawa, hereinafter *Minamizawa*. Claims 14, 15, 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Minamizawa* in view of *Muto*. Claims 21-23 and 25-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,184,996 to Gase, hereinafter *Gase*, in view of U.S. Patent No. 6,952,280 to Tanimoto, hereinafter *Tanimoto*. Claim 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gase* and *Tanimoto* and further in view of *Muto*. Claims 31-

33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gase and Tanimoto and further in view of U.S. Patent No. 6,897,972 Noda, hereinafter *Noda*.

### ***Discussion of Application***

As discussed during the interview, the present application relates to determining priority for print jobs, *e.g.*, if a user is operating a terminal that sent a print job or on their way to collect a print job.

Pages 2-3 of the present application discuss a situation where a plurality of print jobs is sent from a variety of terminals to a single printer. An issue arises when some of the print jobs are more urgent than others. For example, a user could send a series of print jobs so that the first print job arrives at the printer while the user is still operating the terminal. A problem arises because a user who is at the printer may have to wait for an absent user's print jobs to print. Therefore, as described in the present application, it is desirable to detect the current manual operating state of a terminal sending a print job to determine the proper priority of the print jobs, *e.g.*, if the user is still at his terminal or in route to collect the print job.

Beginning on the bottom of page 16 of the present application, an embodiment of the claimed subject matter is described. According to that embodiment, when an input is received from an input means, *i.e.*, when a user performs an operation such as manually pressing a key on the keyboard or moving the mouse, an operation information generating unit is notified that an operation has been received. Upon receipt of such notification, the operation information generating unit generates a code "key" that indicates an operation has been performed and transmits such to the printer server, and subsequently the printer, via

a LAN. Thus, the printer device can determine how often a user manually operates, *i.e.*, generates a "key", at the terminal, and can thus determine how likely it is that a user is in route to collect the print job. In other words, a user who is typing at a terminal is likely not in route to collect a print job, and that print job receives a low priority. In contrast, a user who is not typing at a terminal is likely in route to collect a print job, and that print job is given a high priority. The previous description is not meant to limit the claims to the discussed embodiment.

### **Rejections**

#### **Claims 1, 2, 6, 7 and 10-12 as being anticipated by Satoshi**

Claims 1, 2, 6, 7 and 10-12 are rejected as being anticipated by *Satoshi*.

*Satoshi* discloses a print handling method. The translation of the abstract of *Satoshi* indicates that the *Satoshi's* goal is to finish printing data when desired by the operator of the data input device. With regard to the disclosed solution, it seems to be indicated that priority values P are somehow coupled or related to the print job. *Satoshi* further discloses that the priority values of: 1) received print data and 2) print data already stored in the RAM of the print spooler, are calculated with regard to: 1) the current time G, 2) print start time K, 3) print end time S, and 4) print time T S2 and S3. Based on those factors, the print priority P for all the print jobs, including those just received, are calculated and saved in the RAM.

Claim 1 is directed to a printer controller that receives print jobs transmitted from a plurality of terminals, and instructs a printer to perform print processing. A detector detects pieces of operation information, each relating to a user's current manual operation of one of the plurality of terminals. A priority determining unit

determines priority levels for a plurality of print jobs waiting to be printed, a priority level of a print job determined based on a piece of operation information detected by the detector from a terminal that transmitted the print job. A controller instructs the printer to process the plurality of print jobs in an order on the determined priority levels.

*Satoshi* does not disclose every feature of Claim 1. Particularly, *Satoshi* does not disclose the claimed combination including features relating to a piece of operating information relating to a user's **current manual operation** of a terminal.

*Satoshi* does not disclose any subject matter relating to a user's current manual operation of a terminal. For example, *Satoshi* discloses that priority information P is calculated based on: 1) the current time G, 2) print start time K, 3) print end time S and 4) print time T S2 and S3. Those factors are not at all related to a current manual operation of a terminal. They are only related to the time frame for transmission of a print job.

For at least those reasons, Claim 1 is not anticipated by *Satoshi*.

The rejection of Claim 7 as being anticipated by *Satoshi* should also be withdrawn for similar reasons as Claim 1 with regard to similar claim language.

The rejection of Claims 11 as being anticipated by *Satoshi* should be withdrawn too. Claim 11 recites a combination of features that includes a transmission controller that **transmits** the input print job **after waiting for the timer to measure a specified time**.

*Satoshi* does not disclose that subject matter. For example, *Satoshi* discloses detecting the time since a print job was sent to the printer 2 (*arguendo*), and stores the print job in a RAM with a priority P attached. The priority P is based on the time

since the print job was transmitted, but *Satoshi* does not transmit that print job after waiting for a timer to measure a specified time.

For at least that reason, Claim 11 is not anticipated by *Satoshi*.

Claim 12 is rejected as being anticipated by *Satoshi* too, and that rejection should be withdrawn. Claim 12 recites a combination including at least one detector that detects whether an operation is ***in a vicinity*** of each terminal.

*Satoshi* is only concerned with detecting time frames associated with a print job, and does not detect the vicinity of a user to a terminal.

For at least that reason, Claim 12 is not anticipated by *Satoshi*.

The rejections of Claims 2, 6 and 10 should be withdrawn too at least by virtue of their dependence from Claims 1 and 7.

Claim 12 as being anticipated by *Fresk*

Claim 12 defines a printer controller that receives print jobs transmitted from a ***plurality of terminals***, and controls the printer to perform print processing. At least one detector detects whether an operator is in ***the vicinity of each terminal***. A priority determining unit determines the priority levels for a plurality of print jobs waiting to be printed, and a priority level of a print job is determined based on a detection result produced by the at least one detector for ***a terminal that transmitted the print job***. A controller controls the printer so that the plurality of print jobs is processed in an order based on the determined priority levels.

*Fresk* involves a method for temporarily locking out print jobs on a network printer/copier when a user operates a copier interface, thereby indicating that a user is standing next to the copy machine making copies. *Fresk* discloses a network copy

machine 10 (copier/printer) whose print data is produced by a host computer 16, a portable electronic device 22, or a copier user interface 28. When a user operates the copier user interface 28 it is indicated that a copier user is present at the copier and making copies and copy jobs are given priority over the other print jobs sent from the host computer 16 and the portable electronic device 22.

*Fresk* does not disclose at least a printer controller that receives print jobs transmitted from a plurality of terminals, and at least one detector that detects whether an operator is in the vicinity of each terminal. Instead, *Fresk* is only concerned with detecting the presence of a user who is standing next to and operating the copy machine 10 and ignores the vicinity of a user to any of a host computer 16 or a portable electronic device 22.

For at least that reason, Claim 12 is not anticipated by *Fesk*.

Claims 13 and 17 as being anticipated by *Minamizawa*

Claims 13 and 17 are amended, without affecting the scope of the claims, to clarify that a first timer measures an elapsed time since reception of a most recent print job from each terminal, and that a priority determining unit determines a priority level for each terminal according to the measured elapsed times since reception of the most recent print job from each terminal.

Thus, Claim 13 now recites a printer controller that receives print jobs that are transmitted from a plurality of terminals, and instructs a printer to perform print processing. A memory stores each of the received print jobs in correspondence with information indicating **a transmission origin terminal** for each terminal. A first timer measures an elapsed time **since reception of a most recent print job** from

each terminal. A priority determining unit determines a priority level for each terminal according to the measured elapsed times since reception of the most recent print job from each terminal. A controller instructs the printer to process the plurality of print jobs stored in the memory in an order based on the determined priority levels.

*Minamizawa* discloses a facsimile device having a print priority mode and a facsimile priority mode. In the print priority mode the printing of facsimile transmissions is prohibited, and in the facsimile priority mode the printing of other print data is prohibited. One of the problems associated with devices of that sort is the potential for a user to leave the device in the print priority mode, thereby preventing printing of facsimile transmissions. Accordingly, *Minamizawa* uses a "timing out" period, after which the device reverts from the print priority mode to the facsimile priority mode. That is, when the user selects the print priority mode, a period of five minutes is allowed for receipt and printing of other data. After five minutes elapse without reception of other print data, the facsimile device reverts to the facsimile priority mode. If other print data is received before five minutes elapse, at least ten seconds are allowed to elapse before reversion to the facsimile priority mode. As note above, those operations prevent the device from being left in the print priority mode thereby preventing printing of facsimile transmissions.

*Minamizawa* does not disclose origin terminal information and is not concerned with identification of a terminal that sent print data. For that reason, Claims 13 is not anticipated by *Minamizawa*.

Claim 17 is allowable for similar reasons as set forth above with regard to Claim 13.

Claims 21-23 and 25-30 over Gase in view of Tanimoto

Claims 21, 26 and 29 are amended to more clearly recite that the operation state is a manual operation state.

Thus, Claim 21 recites a printer controller that receives print jobs that are transmitted from a plurality of terminals, and controls a printer to perform print processing. Memory stores each of the received print jobs in correspondence with information indicating a transmission origin terminal. A transmission control unit transmits a request signal requesting transmission of a piece of processing information for a print job to the transmission origin terminal. A controller receives the piece of print processing information transmitted from the terminal that received the request signal, and controls the printer so as to perform print processing of the job, based on the received piece of print processing information. The piece of print processing information relates to **a current manual operation state** of the transmission origin terminal.

Review of *Gase* and *Tanimoto* reveals that neither relate to or disclose a current manual operation state of a transmission origin terminal.

*Gase* discloses a network printer with remote print queue control procedure. A number of client processors 10, 12 are connected to a printer 14 via the internet WWW. Both the client processors 10, 12 and the printer 14 include a browser procedure 18 and a server procedure 20. Each client processor 10, 12 includes an application 22 which may have a print job ready for submission to printer 14. A print job is delivered to the printer by sending a URL from the client processor 10, 12 to the printer 14. Once the printer 14 receives the URL, the printer 14 uses the browser procedure 26 to respond to the received URL by accessing, via the WWW, the print



job present in the application 22 that is designated by the URL. The application 22 could be in any client processor connected to the WWW. When the print job is accessed, the client processor then responds with the text of the print job, which is delivered to and printed by the printer 14. The printer 14 further includes a job queue 28 which lists the URLs of received print jobs. Before printing the print job, the corresponding URLs are stored in the job queue 28. The job queue 28 is managed by a queue manager 32 which maintains status data, and controls the position of each of the URLs listed on the job queue 28. A job detail page enables the originating client processor to exert control over job queue 28 and the details of the specific job URL. By clicking one of the entries on the job detail page, alterations can be made to: the identity of the job indicated, the state of the job, the number of pages to be printed, the URL of the job, the job description, the owner of the job, and the number of copies to be printed. The queue position of a client processor's URL listed may be changed by operating a change button 60. However, in order to modify the queue position of a client processor's URL, the client processor must have been previously provided with a higher assigned priority level which enables its print jobs to enjoy a higher priority status than other print jobs on job queue 28.

*Tanimoto* discloses a network printing apparatus that uses designated print paper only for print jobs from a designated client or for a specific job. The Background of the Invention section of *Tanimoto* describes a problem involving the inability of users to use a network printer to print on special kinds of paper. That is, when a user loads a special kind of paper, it is not possible to prevent other user's print jobs from being printed on that paper. Therefore, *Tanimoto* discloses

designating a special paper for use only with a designated client or designated print job, thereby excluding all other clients or print jobs from using the special paper.

Neither *Gase* nor *Tanimoto* disclose the subject matter relating to a piece of print processing information that relates to a current manual operation state of a transmission origin terminal. That is, *Gase* only discloses that the URLs are used to retrieve print jobs, and not that the print jobs include any information relating to the current manual operation state of the transmission origin terminal. *Tanimoto* only discloses determining the identity of the client that sent the job, or what specific job is being sent, and does not relate to information that relates to a current manual operation state of a transmission origin terminal. That is, *Tanimoto* only identifies the client processor, not its manual operation state.

For at least that reason, Claim 21 is allowable.

Claims 26 and 29 are allowable for similar reasons as set forth above with regard to Claim 21.

Claims 22-25 and 27, 28 and 30 are allowable at least by virtue of their dependence from allowable independent Claims 21, 26 and 29.

### Conclusion

For the reasons stated above, it is requested that all the rejections be withdrawn and that this application be allowed in a timely manner.


Should any questions arise in connection with this application, or should the Examiner feel that a teleconference would be helpful in resolving any remaining issues pertaining to this application, the undersigned requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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